

Natural Heritage & Endangered Species Program

Massachusetts Division of Fisheries & Wildlife
Route 135, Westborough, MA 01581
tel: (508) 792-7270, ext. 200; fax: (508) 792-7821
www.state.ma.us/dfwele/dfw/nhesp

New England Siltsnail *Cincinnatia winkleyi*

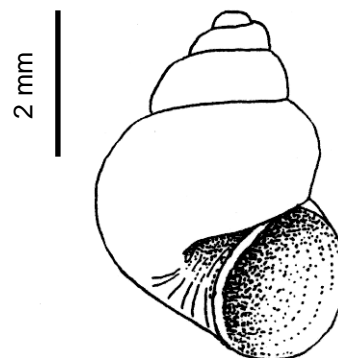
State Status: **Special Concern**

Federal Status: None

Description: The New England Siltsnail is a relatively small snail with a broadly conical shell. The spiral shell has 4.5 to 5 strongly convex whorls. It has a glossy sheen and is whitish in color when cleaned (Pilsbry 1912). The average size for adults is 4.8 mm long and 3.1 mm in diameter. Like all snails of the subclass Prosobranchia, the New England Siltsnail has a hardened circular structure, known as an operculum, which acts as a trap door at the shell opening. The operculum has a single obvious spiral that fans out to the perimeter. Identification of this species can be difficult because it requires knowledge of specific anatomical features of snails.

Habitat: Look for the New England Siltsnail in coastal waters that are fresh or contain a trace of salt. Habitats include pools, creeks, marshes, and banks exposed at low tides. This snail is often found on top of mud banks waiting for water from the rising tides to cover it. It is also found on rocks and emergent vegetation beneath the water. In Massachusetts, a ditch with cattails and rushes draining an oak-alder-pine swamp supports one population. Another population has been found in streams with tidal influences flowing out of a partially impounded cattail marsh (mixed *Typha angustifolia* and *T. latifolia*). Elsewhere, this snail has been found in isolated tidal pools with high salinities and in association with the Saltmarsh Hydrobe Snail (*Spurwinkia salsa*). It has also been found in brackish tidal marshes dominated by cattails with patches of Fresh Water Cordgrass (*Spartina pectinata*) and Soft-stem Bulrush (*Scirpus validus*). Although this species can be found in brackish waters (salinity of 0.5 to 3.0 parts per thousand), it also occurs in fresh waters.

Life History/Behavior: Little is known about the life history and behavior of The New England Siltsnail. The zones where these snails have been found are not very big, but the populations are often dense. Copulation has been observed while the snails were on rocks in the water.



Smith, D.G. Keys to the freshwater macroinvertebrates of southern New England. Published by author. Sunderland, MA. 2000.

Threats: Unregulated development adjacent to the drainage systems that contain this species is a potential threat, as is a change in hydrology or the leaching of toxic substances into the snail's habitat.

Range: The New England Siltsnail is distributed in coastal waters from northern Massachusetts to mid-Maine.

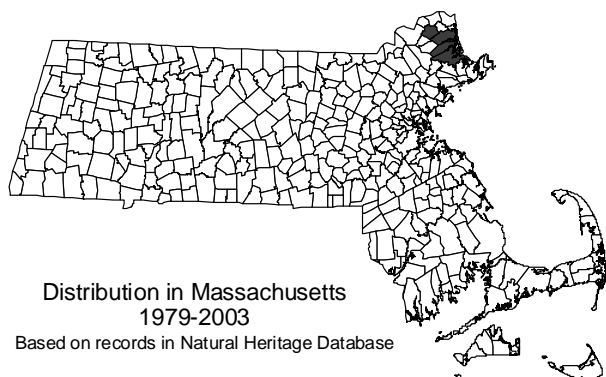
Population Status in Massachusetts: The New England Siltsnail is known from five localities in Massachusetts that are confined to the north shore where development pressure is high. The New England Siltsnail is listed under the Massachusetts Endangered Species Act as a Species of Special Concern. All listed species are protected from killing, collecting, possessing, or sale and from activities that would destroy habitat and thus directly or indirectly cause mortality or disrupt critical behaviors. In addition, listed animals are specifically protected from activities that disrupt nesting, breeding, feeding, or migration.

Similar Species:

The New England Siltsnail is similar to Pilsbry's Spire Snail (*Pyrgulopsis lustrica*) in appearance except that the shell of Pilsbry's Spire Snail is more narrowly conical. Identification guides sufficiently illustrate the differences among these species (Smith 2000).

References:

- Davis, G. M. and M. Mazurkeiwicz. 1985. Systematics of *Cincinnatia winkleyi* (Gastropoda: Hydrobiidae). Proceedings Academy Natural Sciences Philadelphia 137: 28-47.
Pilsbry, H.A. 1912. A new species of *Amnicola*. The Nautilus 26 (1):1.
Smith, D. G. 2000. Keys to the freshwater macroinvertebrates of southern New England. Published by author. Sunderland, MA. 243 pp.



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